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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/709,553

05/13/2004

Isaac Cohen

3552

41427

7590

09/20/2005

ISAAC COHEN

1171 CARLL'S STRAIGHT PATH

DIX HILLS, NY 11746

EXAMINER

RILEY, SHAWN

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/709,553	COHEN, ISAAC	
	Examiner	Art Unit	
	Shawn Riley	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 may 2004 filing.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>may04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is an examiner's statement of reasons for allowance: No prior art uncovered anticipates or renders obvious applicant(s) claimed power factor correction circuit including a momentary value of the current absorbed by the said load, the said control circuit comprising: A SR flip-flop that in its set state turns the said power switch on An integrator A clock generator that produces a fixed frequency train of narrow pulses for resetting the integrator said flip-flop and an A saw tooth voltage integrating a signal by the said Load, the said integrator being reset by the generated by the said integrator by proportional to the current absorbed pulses from the said clock generator so the amplitude of the said saw tooth voltage is proportional to the current of the said Load and inversely proportional to the said frequency of the clock pulses A comparator that compares the said the saw tooth to the current delivered voltage to a signal proportional to the said output circuit, the said comparator setting the said SR flip-flop when the value of the current delivered from the said inductor to the said output circuit drops below the value of the said saw tooth voltage.

No prior art uncovered anticipates or renders obvious applicant(s) claimed power factor correction circuit including a comparator that compares the said the saw tooth voltage to a signal proportional to the current delivered output circuit, the said comparator setting the said SR flip-flop when the value of the current delivered from the said inductor to the said output circuit by the converter to the said drops below the value of the said saw tooth voltage.

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No prior art uncovered anticipates or renders obvious applicant(s) claimed power factor correction circuit including a comparator that compares the said saw tooth voltage to a signal proportional to the current delivered to the said output circuit, the said comparator setting the said SR flip-flop when the value of the current delivered from the said inductor to the output circuit drops below the value of the said saw tooth voltage.

No prior art uncovered anticipates or renders obvious applicant(s) claimed power factor correction circuit including when the said power switch is off, the said control circuit modulating the on and off intervals of the said power switch so the momentary input current of the said converter is directly proportional to both the momentary value of the input voltage source of the said converter and to the momentary value of the current absorbed by the said load, the said control circuit comprising: -A SR flip-flop that in its set state turns the said power switch on -An integrator -A clock generator that produces a fixed frequency train of narrow pulses for resetting the said flip-flop and the said integrator -A saw tooth voltage generated by the said integrator by integrating a signal proportional to the current absorbed by the said load and inversely proportional to the square of the average or the RMS value of the input voltage of the said integrator being reset by the said converter.

1. This application is in condition for allowance except for the following formal matters:

Applicant(s) is(are) reminded of the proper content of an abstract of the disclosure.

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The abstract should not refer to **purported merits** or speculative applications of the invention and should not compare the invention with the prior art.

Control of Power Factor Correction converters **improves** the dynamic performance and **facilitates stabilization** of the voltage control **lop** by using by using Valley Current Mode Control in conjunction with feed forward compensation of changes in the input voltage and the output load of the converters.

The four independent claims are not written using us patent practice, i.e., a single sentence.

Drawings

The drawing(s) is(are) objected to because they fail to label box 16 (figure(s) 3-6)-- what the element box is. Without some indication as to the content of the boxes (or preferably ansi symbols of the actual elements) it is not clear as to what the elements are and they are not explanatory to a reader as a quick method of determining the general background of the invention.

See MPEP 608.02 and 37 CFR 1.84 (o) -- **Legends**

Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible.

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

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A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Allowable Subject Matter

1. Claims 1-4 are allowable over the prior art of record.

Conclusion

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 571.272.2084. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax MUST BE sent to fax number 703.872.9306. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is

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found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

September 05

A handwritten signature in black ink, appearing to be 'Shawn Riley', written over a horizontal line.

Shawn Riley
Primary Examiner